

## CLAIMS

We claim:

1. A method of recovering lost frames transmitted between a packet sending unit and a packet receiving unit in a data communications system, comprising the  
5 steps of:
  - (a) identifying a failure to successfully receive a missed frame;
  - (b) establishing a logical tunnel channel at the packet receiving unit to  
acknowledge the next successfully received frame; and
  - (c) upon receiving a tunnel establishment request from the packet  
10 receiving unit, the packet sending unit resending the missed frame on the logical  
tunnel channel.
2. The method recited in Claim 1, further including the packet receiving unit  
starting a first timer upon receipt of the next successfully received frame, and  
acknowledging all frames having a predetermined poll bit setting irrespective of  
window closure, and the packet sending unit retransmitting the missed frame and  
5 starting a second timer having a timer duration, wherein if the acknowledgment  
for retransmitted missed frame does not come prior to expiration of the second  
timer, the packet sending unit resending the missed frame a specified number of  
times.
3. The method recited in Claim 2, further including the step of the packet  
receiving unit sending a receive ready (RR) frame upon successful receipt of the  
missed frame and the packet sending unit retransmitting the missed frame a  
specified number of times.

4. A method of recovering lost frames transmitted between a packet sending unit and a packet receiving unit in a data communications system, comprising the steps of :

- (a) identifying a failure to successfully receive a missed frame;
- 5 (b) establishing a logical tunnel channel at the packet receiving unit to acknowledge the next successfully received frame
- (c) the packet receiving unit starting a first timer;
- (c) upon receiving a tunnel establishment request from the packet receiving unit, the packet sending unit resending the missed frame on the logical
- 10 tunnel channel and starting a second timer; and
- (d) the packet sending unit resending the missed frame a specified number of times until receiving an acknowledgement from the packet receiving unit; and
- (e) closing the logical tunnel channel at the packet sending unit.